CLAIMS

1. An active energy ray-curable organopolysiloxane resin composition comprising:

(A) 100 parts by weight of an epoxy-containing organopolysiloxane resin represented by the following siloxane unit formula (1) :

$$(R^1R^2R^3SiO_{1/2})_a (R^4R^5SiO_{2/2})_b (R^6SiO_{3/2})_c (SiO_{4/2})_d \qquad (1)$$

(where R^1, R^2, R^3, R^4, R^5, and R^6 are organic groups selected from univalent aliphatic hydrocarbon groups with 1 to 6 carbon atoms, univalent aromatic hydrocarbon groups with 6 to 10 carbon atoms, and epoxy-containing univalent hydrocarbon groups, wherein in one molecule the siloxane units with epoxy-containing univalent hydrocarbon groups constitute 2 to 50 mole%, the univalent aromatic hydrocarbon groups with 6 to 10 carbon atoms constitute more than 15 mole% of all organic groups, and where the following conditions are satisfies: $a+b+c+d=1$; "a" on average satisfies the following condition: $0 \leqq a<0.4$; "b" on average satisfies the following condition: $0<b<0.5$; "c" on average satisfies the following condition: $0<c<1$; "d" on average satisfies the following condition; $0 \leqq d<0.4$; and "b" and "c" are bound by the following condition: $0.01 \leqq b/c \leqq 0.3$);

(B) 0.05 to 20 parts by weight of a photopolymerization initiator; and

(C) 0 to 5000 parts by weight of an organic solvent.

2. The active energy ray-curable organopolysiloxane resin composition according to Claim 1 for use as a cured body in the form of a film.

3. The active energy ray-curable organopolysiloxane resin composition according to Claim 1 for use as a light-transmitting component.

4. The active energy ray-curable organopolysiloxane resin composition according to Claim 3 wherein said light-transmitting component is an optical waveguide.

5. An organopolysiloxane resin composition according to any of Claims from 1 to 4, wherein said active-energy rays are ultraviolet rays.

6. A light-transmitting component obtained by curing (A) an epoxy-containing organopolysiloxane resin represented by the following siloxane unit formula (1) :

$$(R^1R^2R^3SiO_{1/2})_a\ (R^4R^5SiO_{2/2})_b\ (R^6SiO_{3/2})_c\ (SiO_{4/2})_d \qquad (1)$$

(where R^1, R^2, R^3, R^4, R^5, and R^6 are organic groups selected from univalent aliphatic hydrocarbon groups with 1 to 6 carbon atoms, univalent aromatic hydrocarbon groups with 6 to 10 carbon atoms, and epoxy-containing univalent hydrocarbon groups, wherein in one molecule the siloxane units with epoxy-containing univalent hydrocarbon groups constitute 2 to 50 mole%, the univalent aromatic hydrocarbon groups with 6 to 10 carbon atoms constitute more than 15 mole% of all organic groups, and where the following conditions are satisfied: , $a+b+c+d=1$; "a" on average satisfies the following condition: $0 \leqq a < 0.4$; "b" on average satisfies the following condition: $0 < b < 0.5$; "c" on average satisfies the following condition: $0 < c < 1$; $0 \leqq d < 0.4$; and "b" and "c" are bound by the following condition: $0.01 \leqq b/c \leqq 0.3$) under effect of irradiation with active energy rays in the presence of (B) a photopolymerization initiator (where component (B) is used in an amount of 0.05 to 20 parts by weight for each 100 parts by weight of component (A)).

7. The light-transmitting component according to Claim 6, wherein said light-transmitting component is an optical waveguide.

8. The light-transmitting component according to Claim 6, wherein said optical waveguide is made in the form of a film.

9. The light-transmitting component according to Claim 6, wherein said active-energy rays are ultraviolet rays.

10. A method of manufacturing a light-transmitting component, comprising the steps of: applying the active energy ray-curable organopolysiloxane resin composition of Claim 1 onto a substrate; and curing the applied composition by irradiating it with active-energy rays.

11. A method of manufacturing an optical waveguide, comprising the steps of 1) forming a lower cladding layer by applying an active energy ray-curable organopolysiloxane resin composition of Claim 1 onto a substrate and by curing the applied material by irradiating it with active-energy rays; 2) forming a core layer by applying said active energy ray-curable organopolysiloxane resin composition of Claim 1 (however, the refractive index of the cured body is greater than the refractive index of the cladding layer) onto said lower cladding layer and by curing the applied layer by irradiating it with active energy rays; if necessary, processing said core layer into a desired shape; and 3) forming an upper cladding layer by applying said active-energy rays-curable organopolysiloxane resin composition of Claim 1 onto said core layer, or onto said core layer of a

desired shape and said lower cladding layer, and curing the applied material by irradiating it with active-energy rays.